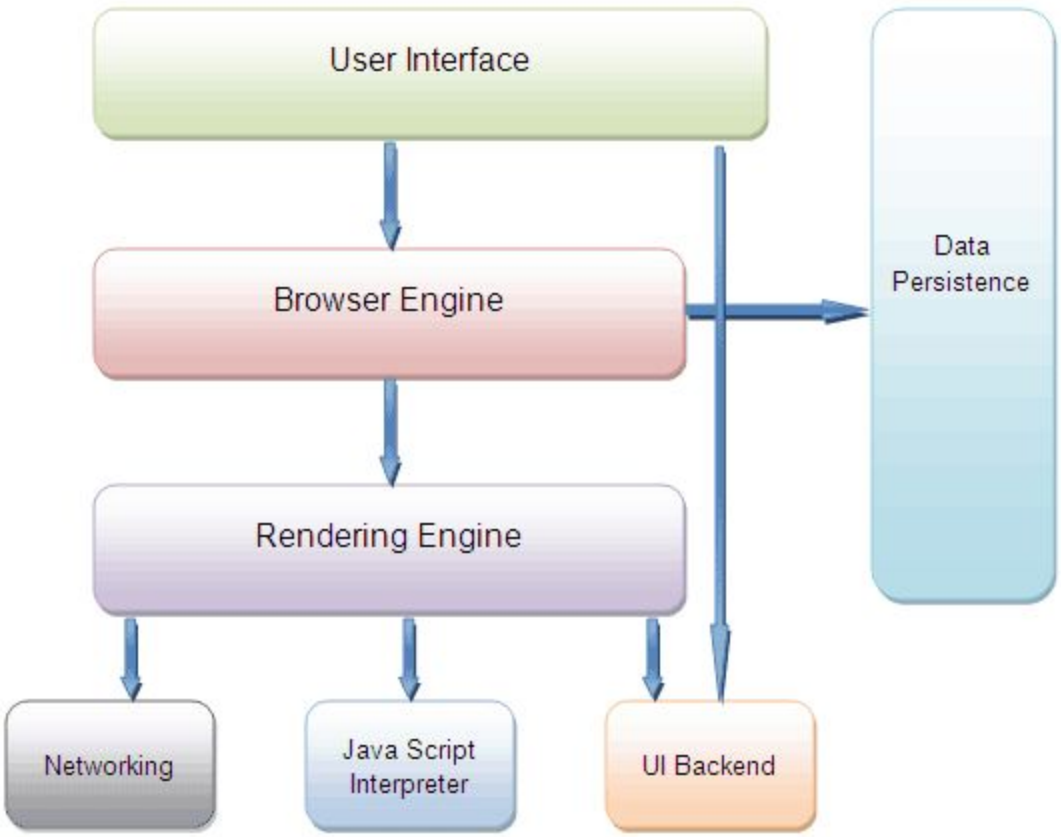
# Structure Of A Web Browser

A Web browser, at a minimum, consists of an Hypertext Markup Language (HTML) interpreter and HTTP client that is used to retrieve HTML Web pages.




The browser's consist of the above component where

1. **User Interface** is the top bar in the browser, where control lies. It includes space where we type the URL, have back/forward buttons, space where tabs and setting options are.
2. **Browser engine** is the bridge between User Interface and the Rendering engine. Based on the inputs from a user it queries and manipulates the rendering engine.

3. **Rendering engine** is responsible for parsing HTML/CSS/XML and displaying it into the empty space below User-Interface. Based on the plugins and support it can display other types of media also(like pdf/word). There are two major rendering engines in market Webkit and Gecko. Basic functionality is that it parses HTML by looking for <,/,> and related symbols and attributes, then it parses CSS and finally scripts. A point to be noted is that all the parsing goes in parallel.
4. **Networking** is fetching resources and handling everything related to the internet.
5. **Javascript interpreter** is JS engine which reads and executes the js code and handles the result to the rendering engine.
6. **UI backend** is used for drawing basic widgets like combo boxes and windows. This backend exposes a generic interface that is not platform specific. It underneath uses operating system user interface methods.
7. **Data Persistence** is support for storage mechanisms such as localStorage, IndexedDB, WebSQL, and FileSystem. It is a small database created on the local drive of the computer where the browser is installed. It manages user data such as cache, cookies, bookmarks, and preferences.